RUST GEOTECH INC.

Spectral Gamma-Ray Borehole
Log Data Report

Borehole 41-01-10

Log Event A

Borehole Information

Farm :	SX	**Tank :**	SX-101	**Site Number :**	299-W23-191
N-Coord :	35,567	**W-Coord :**	75,711	**TOC Elevation :**	663.00
Water Level, ft :	95.50	**Date Drilled :**	11/20/1974		

Casing Record

Type :	Steel-welded	**Thickness :**	0.280	**ID, in. :**	6
Top Depth, ft. :	0	**Bottom Depth, ft. :**	100		

Equipment Information

Logging System :	1	**Detector Type :**	HPGe	**Detector Efficiency:**	35.0 %
Calibration Date :	03/1995	**Calibration Reference :**	GJPO-HAN-1		

Logging Information

Log Run Number :	1	**Log Run Date :**	5/4/1995	**Logging Engineer:**	Bob Spatz
Start Depth, ft.:	0.0	**Counting Time, sec.:**	100	**L/R :** L	**Shield :** N
Finish Depth, ft. :	87.5	**MSA Interval, ft. :**	0.5	**Log Speed, ft/min.:**	n/a

Log Run Number :	2	**Log Run Date :**	5/5/1995	**Logging Engineer:**	Bob Spatz
Start Depth, ft.:	99.5	**Counting Time, sec.:**	100	**L/R :** L	**Shield :** N
Finish Depth, ft. :	86.5	**MSA Interval, ft. :**	0.5	**Log Speed, ft/min.:**	n/a

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Analysis Information

Analyst : P.D. Henwood

Data Processing Reference : Data Analysis Manual Ver. 1 Analysis Date : 8/28/1995

Analysis Notes :

Borehole 41-01-10 was drilled in 1974 with a single steel casing 0.313 in. thick. There is no grout or cement plug in this hole. The casing correction used for all log data was 0.33 in., which may cause the reported concentration to be slightly higher than actual.

Cs-137 was the only man-made radionuclide detected in the borehole. It was primarily found from the surface to 26.5 ft with a maximum concentration of 61 pCi/g at 0.5 ft in depth. An interval from 48 to 57.5 ft had a maximum concentration of 5 pCi/g. Concentrations just above the MDA were found at spotty locations throughout the borehole. The bottom of the borehole indicated Cs-137 at about 5 pCi/g.

Log Plot Notes:

Three log data plots are provided. The Cs-137 concentration is provided in a separate log plot to document the concentration and show the shape of the distribution. The error of the Cs-137 concentration is shown by error bars and represents the 95-percent confidence interval. The MDA is shown on this plot as open circles.

A plot of naturally occurring potassium (K-40), uranium (U-238), and thorium (Th-232) is provided to permit correlation of these data with geologic information. On the Th-232 plot, the MDA value is shown as zero at some depth locations. This zero value was a result of an anomaly in the commercial spectrum analysis spectrum software which has been corrected by the vendor. Because the MDA calculation at these few points is not significant relative to the intended use of the plot, the data were not reprocessed and corrected. Therefore, these MDA data points on the plot should be ignored.

A combination plot of individual radionuclides is provided for correlation purposes. This plot contains the Cs-137 log, the natural gamma logs, a log of the total gamma count rate calculated from the spectral data, and the WHC Tank Farms gross gamma ray data. The Tank Farms gross gamma log is provided to allow the correlation of the spectral gamma data with the historical record.